

5 kW Microwave Generator, 915 MHz, EIA 1-5/8 Coax

GERLING

Model GA4341

The model GA4341 Microwave Generator is the flagship of an entirely new product line of compact 915 MHz equipment designed for microwave heating applications. Based on the use of coaxial transmission line components instead of waveguide, this system is the most compact and light weight 5kW, 915 MHz microwave generator available and ideal for use in research laboratories and production process equipment.

As with most GAE microwave generators, the GA4341 consists of separate modules for the magnetron and switch mode power supply. The magnetron head module includes an internal isolator with a dummy load for protecting the magnetron from a full reflection. Control functionality is provided remotely via analog and remote interfaces, while local control with front panel display is available as an option. Reverse power monitoring is provided as a standard feature while forward power monitoring from an external coupler is available optionally. Included with the GA4341 system is a complete set of interconnect cabling between the two modules for convenient setup and operation.

Serviceability and reliability of the magnetron head was a primary consideration in its design. Removal and replacement of the magnetron can be done easily using standard tools. Multiple interlock devices protect against exposure to high power microwave energy and hazardous voltages. The power supply module combines state-of-the-art inverter technology with advanced microprocessor controls to provide high performance in a compact and light weight package.

The complete system includes mating connectors and a standardized 10 ft. cable set for connecting between the magnetron head and power supply (other lengths may be specified by customer). Contact GAE for more detailed information on these and other available options and custom configurations.



General Specifications:

Output Power (max)	5kW
Frequency	915 MHz +/- 5 MHz
Output Power Range	10-100%, continuously variable
Output Ripple	+/- 2% of full output
Magnetron	Hitachi H0930
Output Flange	EIA 1-5/8 Coax, with 5/16-18 studs
Impedance	50 Ohm
Cooling	Mag Head: Water @ 1.0 gpm min Power Supply: Internal fans
Input Power	420-520 VAC, 50/60 Hz, 3-phase, 14.5 Amps/phase (@ 480V)
Local Controls	System On/Off, Status indicators
Remote Controls	Analog, RS-232
Interlocks	Output flange, Access cover, Magnetron over-temp, Water flow
Temperature	41-104 °F (5-40 °C)
Relative Humidity	80% up to 88 °F (31 °C), decreasing linearly to 50% at 104 °F (40 °C)
Weight (approx.)	Mag Head: 68 lb (31 kg) Power Supply: 77 lb (35 kg)

Options:

- ◆ Front panel display with local controls
- ◆ Ethernet control interface
- ◆ Forward and/or reflected power signal interface (requires separate waveguide coupler)
- ◆ Input Line Voltage: 360-450 VAC or 190-240 VAC

Accessories:

- ◆ Forward power coupler, model GA3117
- ◆ Coaxial cable for coupler power signal, GAE part number 914279-18



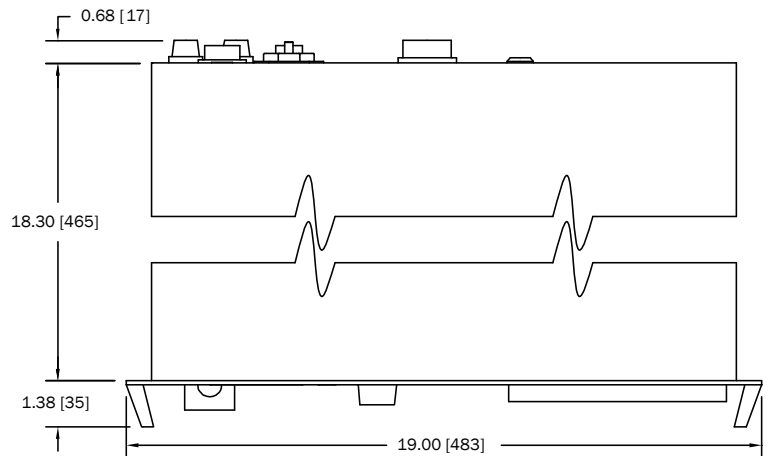
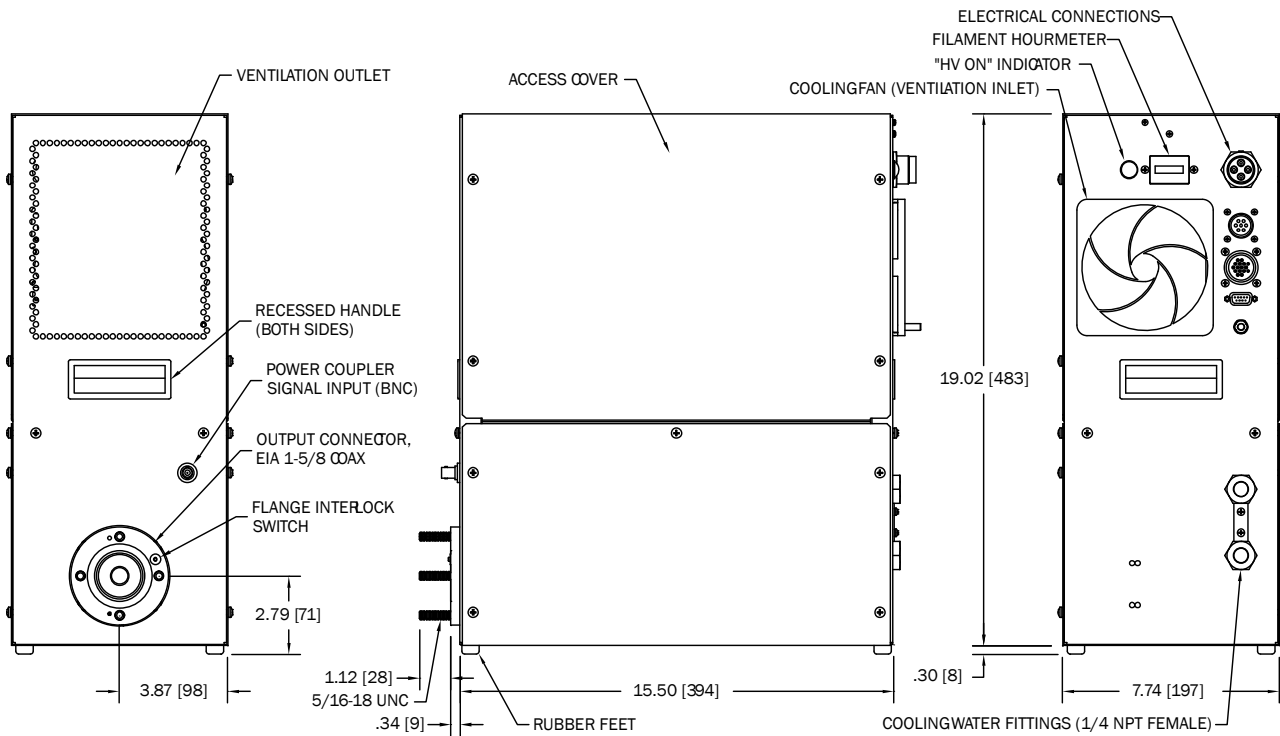
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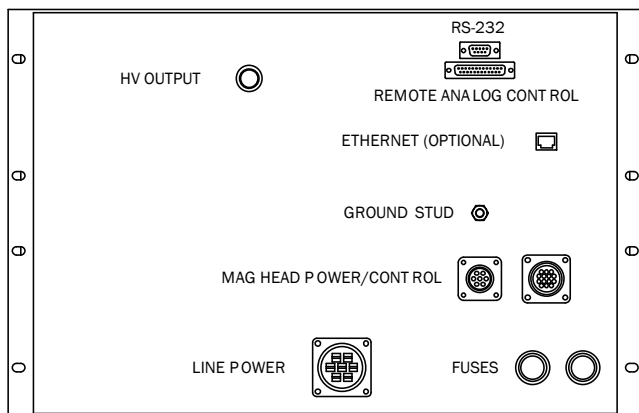
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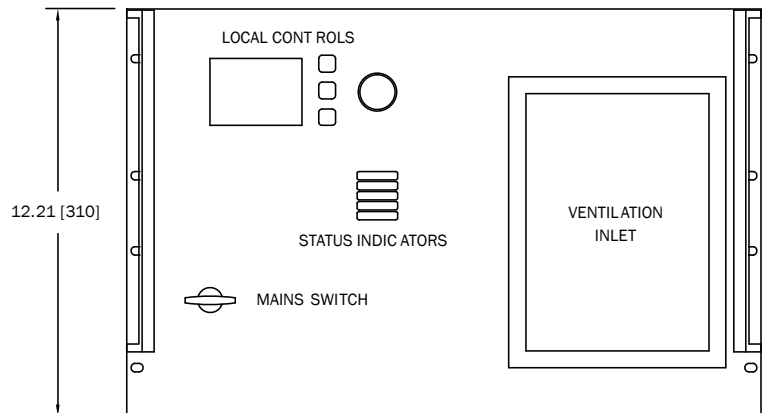
Model GA4341



(REAR PANEL)



(FRONT PANEL)



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All dimensions are in inches [millimeters].